

REMARKS/ARGUMENTS

A. Status of the Claims

Claims 32–42 were pending at the time of the Second Action. Therefore, claims 32–42 are pending.

B. The obviousness rejections under 35 U.S.C § 103(a) are traversed.

Claims 32–34, 36–38, and 40–42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kadota et al. (WO 03/084728 having translation similar to US 2005/0200033) in view of Kudert et al. (US 5,523,045) or Osawa et al. (US 2003/0122281). Claim 35 is rejected under 35 U.S.C. §103(a) as being unpatentable over Kadota et al. . (WO 03/084728 having translation similar to US 2005/0200033) in view of Kudert et al. (US 5,523,045) or Osawa et al. (US 2003/0122281), and in further view of Andino et al. (US 2002/0163095). Claim 39 is rejected under 35 U.S.C. §103(a) as being unpatentable over Kadota et al. (WO 03/084728 having translation similar to US 2005/0200033) in view of Kudert et al. (US 5,523,045) or Osawa et al. (US 2003/0122281), and in further view of Su et al. (US 2002/0163095).

Obviousness is determined by analyzing the factors set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966):

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence.

The Examiner serves as the factfinder when resolving the *Graham* inquiries. *See* MPEP § 2141(II.). As part of determining the scope and contents of the prior art, the Examiner is required to find that the prior art includes each element claimed by the applicant, although not necessarily in a single reference. *See* MPEP § 2143. Obviousness requires that the prior art teach or suggest every claim element. *See KSR Int'.l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007). If the prior art fails to teach or suggest even a single claim element, then that claim is rendered nonobvious. *See id.* If an independent claim is nonobvious, then any claim that depends on that independent claim is also nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Here, essential claim limitations of claim 32 are neither taught nor suggested by the cited prior art. Thus, claim 32 and its dependent claims 33–42 are nonobvious.

1. **Claims 32–42 are patentable over Kadota in view of Kudert or Osawa**

Independent claim 32, as well as its dependent claims 33–42, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kadota et al. (WO 03/084728 having translation similar to US 2005/0200033) in view of Kudert et al. (US 5,523,045) or Osawa et al. (US 2003/0122281).

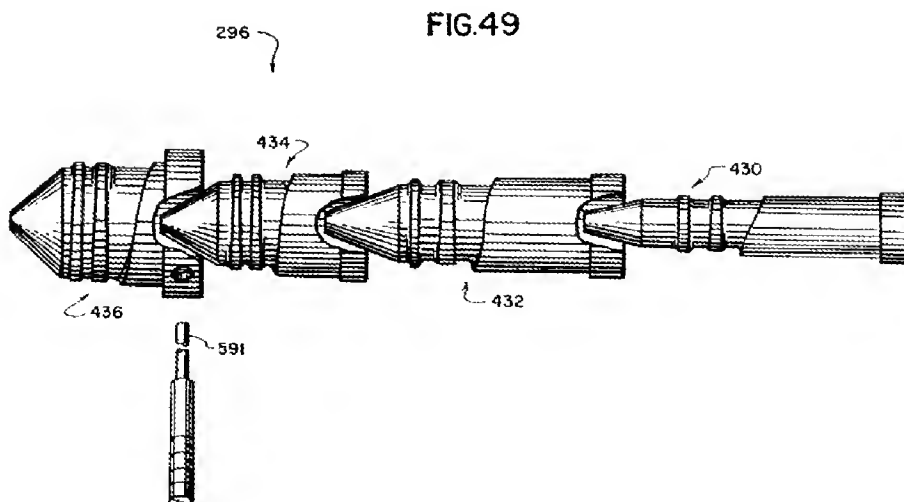
In the Second Action, the Examiner finds that Kadota does not teach or suggest a “*spout defining a substantially flat space having an axis substantially passing by the center of the mold cavity and being limited by two flat faces and two diverging sides inclined on either side of the axis and tangentially connecting to the circular shape of the mold cavity.*” Second Action at 3. Applicant agrees that Kadota does not teach or suggest such a spout.

First, the Examiner cites Kudert—directed to methods for injection-molding and blow-molding multi-layer plastic articles—as supplying this missing claim element:

Furthermore, figures 130-137 of Kudert et al. clearly shows that the **spout** (or nozzle member) defining a substantially flat space having an axis substantially passing by the center of the mold cavity and being limited by two flat faces and two diverging sides inclined on either side of the axis and tangentially connecting to the circular shape of the mold cavity.

Second Action at 3. Here, Applicant respectfully argues that the Examiner has incorrectly interpreted Figures 130–137 of Kudert. These figures do not in fact teach or suggest a spout as claimed.

As shown below, Figures 49 and 49A illustrate a three dimensional view of a nozzle 296 and nozzle cap 438.



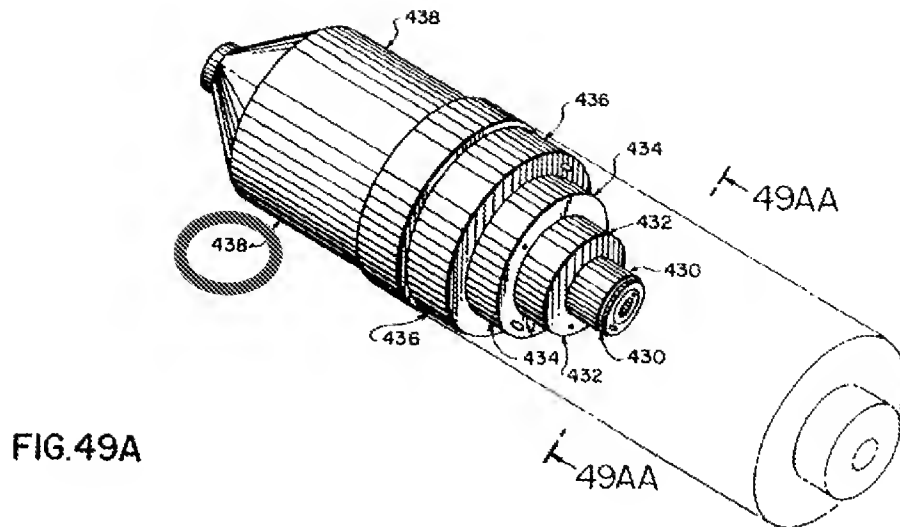


FIG. 49A

FIG. 133 shows a cross-section of the nozzle 296 and nozzle cap 438 of FIGS. 49–49A coupled to an injection mold 1113, shown below left. Nozzle cap 438 of nozzle 296 is shown abutting the injection mold 1109.

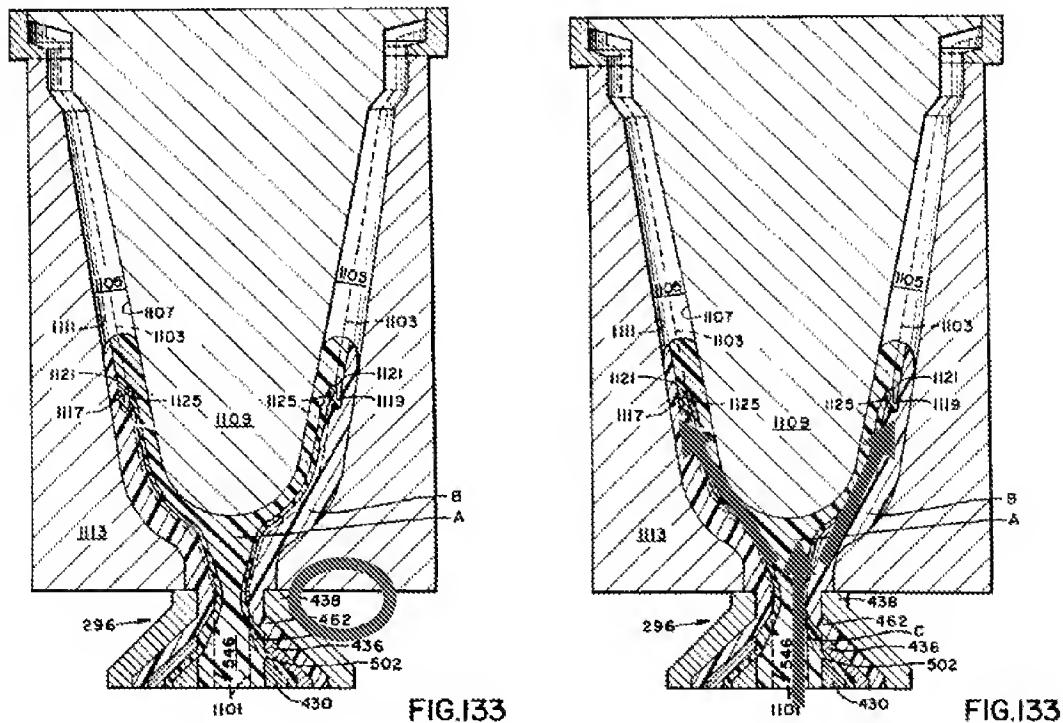


FIG. 133

FIG. 133

What the Examiner describes is not what FIG. 133 depicts. Due to the quasi-conical shape of the injection cavity, what may appear to be “two side feed channels” are in fact a single injection cavity 1105 shown in cross-section. Injection cavity 1105 “is bounded, on one side, by

the surface 1107 of core pin 1109 and, on the other side, by the surface 1111 of the injection mold 1113.” Kudert at 127:63–67.

Furthermore, rather than feeding the nozzle, the injection cavity 1105 is configured to receive multiple layers of material from the nozzle 296, shown above right. Layers of melted polymer flow through channel 546 into the injection cavity 1105. The polymer does not flow from the injection cavity 1105 into channel 546 as Examiner suggests.

In addition, channel 546 has a circular cross-section (i.e., is substantially cylindrical). The channel 546 is not delta-shaped with flat trapezoidal faces.

Finally, it is clear from FIG. 133 that the nozzle central channel 546 does not tangentially connect a mold cavity of a circular shape. The injection cavity 1105 depicted is not circular, but is rather quasi-conical or bottle-shaped as shown.

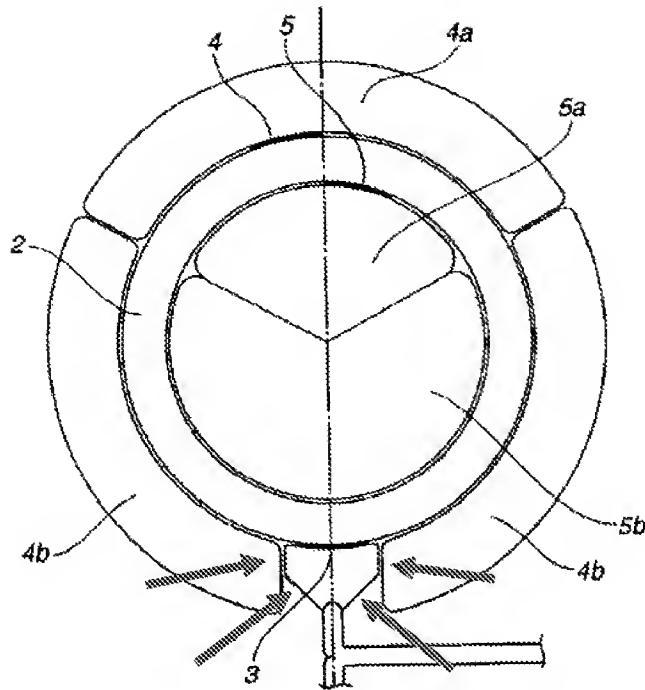
Thus, Kudert does not teach or suggest a nozzle member or spout “defining a substantially flat space having an axis substantially passing by the center of the mold cavity and being limited by two flat faces and two diverging sides inclined on either side of the axis and tangentially connecting to the circular shape of the mold cavity.” Applicant respectfully believes that the rejection is traversed as to the Kudert reference.

The Examiner also cites Osawa as supplying the spout element missing from Kadota. Osawa concerns an injection mold suited for injection molding liquid rubber compositions into ring-shaped articles such as O rings and square rings. Referring to FIGS. 5–12, the Examiner argues that Osawa discloses

[a] spout (3) defining a substantially flat space having an axis substantially passing by the center of the mold cavity and being limited by two flat faces and two diverging sides inclined on either side of the axis and tangentially connecting to the circular shape of the mold cavity. (See figures 5-12). It further teaches that the spout having a flat trapezoidal face (See figures 5-12)

Second Action at 4. Applicant respectfully disagrees with the Examiner’s characterization of Osawa. First, as plainly shown in the cross-section view of the injection mold chamber depicted in FIG. 5, Osawa does not disclose a spout that defines a substantially flat space and is limited by two flat faces and two diverging sides:

FIG.5



Spout 3 does not tangentially connect to the mold cavity 2. Rather, spout 3 connects perpendicularly to the mold cavity 2, and nothing in Osawa teaches or suggests a tangential connection.

Furthermore, indicated by the arrows in FIG. 5 above, the spout disclosed by Osawa is limited by four diverging sides. Osawa does not teach or suggest a spout limited by two diverging sides.

Therefore, Osawa does not teach or suggest a nozzle member or spout “defining a substantially flat space having an axis substantially passing by the center of the mold cavity and being limited by two flat faces and two diverging sides inclined on either side of the axis and tangentially connecting to the circular shape of the mold cavity.” Applicant respectfully believes that the rejection is traversed as to the Osawa reference.

Fewer than all claim elements are taught or suggested when Kadota is viewed together with either Kudert or Osawa. Applicant respectfully submits that the rejections are traversed as to the Kudert and Osawa references, and that claim 32 is nonobvious. Because claim 32 is nonobvious, claims 33–34, 36–38, and 40–42 that depend on claim 32 are also nonobvious and

should be allowed. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) (“If an independent claim is nonobvious, then any claim that depends on that independent claim is also nonobvious.”)

2. Claim 35

The Examiner rejects claim 35 under 35 U.S.C. §103(a) as being unpatentable over Kadota et al. (WO 03/084728 having translation similar to US 2005/0200033) in view of Kudert et al. (US 5,523,045) or Osawa et al. (US 2003/0122281), and in further view of Andino et al. (US 2002/0163095).

As stated above, claim 35 is allowable because it depends on claim 32, and claim 32 is nonobvious. Andino does not teach or suggest the spout as claimed, and so does not supply the missing spout element from claim 32. Therefore, Applicant respectfully believes that the rejection is traversed as to Claim 35, and that Claim 35 should be allowed.

3. Claim 39

Claim 39 is rejected under 35 U.S.C. §103(a) as being unpatentable over Kadota et al. (WO 03/084728 having translation similar to US 2005/0200033) in view of Kudert et al. (US 5,523,045) or Osawa et al. (US 2003/0122281), and in further view of Su et al. (US 2002/0163095).

As stated above, claim 39 is allowable because it depends on claim 32, and claim 32 is nonobvious. Su does not teach or suggest the spout as claimed, and so does not supply the missing spout element from claim 32. Therefore, Applicant respectfully believes that the rejection is traversed as to Claim 39, and that Claim 39 should be allowed.

C. Conclusion

Applicants believe that the present document is a complete response to the Office Action. The present case is in condition for allowance and such favorable action is requested. The Examiner is invited to contact the undersigned attorney at (512) 536-3043 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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